Markets & Business

Wacker Siltronic's new 300mm raw wafer production facility in Freiberg, Germany is due to reach mass production by June 2004. Initial capacity will be 60,000 wpm, increasing to 150,000. The €430m investment is expected to create more than 600 new jobs. Epi wafer finishing services are to be sited close to Taiwan customers. Wacker puts its 300mm market share at 20% worldwide.

SVI Plc, a Thailand-based PCB assembler for OEM, is planning new facilities in the US, Hong Kong and Singapore. According to reports, the company expects revenue to reach US$120m (Baht 5.1bn) within two years now that its second factory has opened several months ahead of schedule.

Amkor Technology and Sharp are to unify designs for 3D system in package assembly for the stacking of very thin packages. Target markets are ASICs, DSPs, cell phones memories, PDAs, and digital still cameras. Development and enhancement of a standard industry stacked package format will use Amkor's stackable CSP and Sharp's package stacked CSP. The first proposal for 3D-SiP, will be to standardise the terminal position of packages containing ASIC and memory devices. Then packages can be stacked onto one another. Stacking existing packaged ICs that have already been qualified individually, speeds development.

Toshiba is to invest ¥350bn in 300mm before March 2007. With other investments, its annual spend on semiconductor technology is expected to be ¥130bn. This compares with Toshiba's total 2002 spending of ¥204bn and projected investments of ¥840bn in the three years to March 2006.

The European Single Patent

After a 30 year deadlock the European Union Governments have finally agreed on a single European patent, expected to boost research and economic growth in Europe substantially.

The EU-wide patent will be available from 2007 or 2008. A central patent court will be set up in Luxembourg by 2010. Until then, courts in the various countries will rule on patent disputes. The single European patent is expected to bring down patent cost substantially. However, all applicants will have to translate the first three pages into all the European Union languages.

The European employers association UNICE, has questioned aspects of the Competitiveness Council's agreement on a Community patent, noting that in engineering and agreement, the Council had lost sight of of European business needs. Three elements are felt by UNICE to run counter to the interests of European business: the jurisdictional system for the patent; translation requirements, and the relationship between national patent offices and the European Patent Office (EPO).

While the creation of a single-court for the Community Patent is welcome, ensuring consistent case law, it says the proposed seven year transition period will be 'bad for legal certainty' and urges Member States to reconsider.

The agreement reached regarding the language of patents states that while applications can be submitted in any of the three official languages, successful claims must be filed in all official Community languages at the applicant's cost. UNICE says this will create excessive, unnecessary costs that will be felt most keenly by small and medium sized enterprises, scientists and research centres.

On the relationship between national patent offices and the EPO, while UNICE supports that the EPO alone will be responsible for examining applications and granting Community patents, there are 'serious concerns' that national patent offices could be called upon to carry out search work on the EPO's behalf affecting 'the quality of the Community patent system.'

Both the Commission and the Member States were urged to take account of these varied concerns before finally adopting the long awaited patent regulation.

Molecule electronics measuring

Researchers at the National Institute of Standards and Technology and Hewlett Packard Laboratories will report progress toward reliable methods for measuring the electrical behavior of molecular electronic devices, an infant nanotechnology eyed for future ICs.

Using a "crossbar" test structure, a molecule-thick film, between a series of perpendicular metal wires, they recorded nearly identical electrical measurements. This helps ensure that the behavior is attributable to the device, and not the set-up.

Better mobile 2003

Worldwide mobilephone unit sales totalled 423.4m units in 2002, a 6% increase on 2001, according to Gartner, Inc's Dataquest. Q4 world mobile phone sales totalled 122.6m, up 14 % on 2001. Q4 mobile operator connection growth came in well above expectations in almost every region, driving Q4 sales up 15% sequentially.

"Consumers embraced a variety of innovative handsets, especially colour, rather than delay replacement because of an ongoing lack of compelling mobile data services," said senior analyst Bryan Prohm.

"This is an encouraging trend, because as carriers and manufacturers determine how to better align devices with applications and services, the market may again prove stronger than expected during 2003."

Assemblies manufacture

APA Optics, based in Blaine, Minnesota, which designs, develops, and manufactures advanced products for fibre optic communications, has completed the acquisition of assets from Computer System Products Inc. for cash and the assumption of certain liabilities.

Principal shareholders of CSP received 5-year warrants for purchase of 350,000 shares of APA stock, exercisable at $3/share. Assets will be used by APA's new subsidiary, APA Cables & Networks Inc, in manufacture of standard and custom copper and fibre cable assemblies for service providers and OEMs.

AVA products include DWDM components, GaN compound semiconductor - based UV detectors, instruments and consumer products.